1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

233 his relatives, and herdsmen. Between the Koryak tents my own little tent was
621 pitched. To move the entire camp required from forty to forty-five sledges. The moving of the camp of the Taigonos chief — who has a herd of five thousand reindeer, twelve herdsmen with their families, and three large tents — requires not less than a hundred and fifty sledges. The train is made up as follows: —

484 First comes the owner in a light sledge drawn by a pair of racing-rein-
29 deer. He drives fast, and leaves the train far behind. On the way he looks
492 up pastures, and selects a halting-place. The sledges, loaded with household goods and tent-furnishings, each drawn by one reindeer, are conducted by women. One woman leads a train of seven or eight sledges. The first sledge, in which the woman-driver is sitting, is pulled by a gentle reindeer, usually one that belongs to the woman. This sledge is followed by a covered sledge for children. Next come sledges with clothing, dishes, provisions, bedding, and the tent-covers. The last sledge drags behind it the poles of the tent, since no reindeer follow it. The transportation of the driving-sledges is effected by placing them on top of the baggage in the freight-sledges.

233 Plate XXV, Fig. 2, shows a doe just after delivery (May 7), with the antlers still on.

493 A description of sledges and the points of distinction between the different kinds — such as racing-sledges, driving-sledges (men's and women's), family sledges, freight-sledges, and sledges for carrying the poles of tents — has been given by Mr. Bogoras.[1] Koryak sledges are in no way different from those of the Chukchee. The plan of construction is as follows: —

Instead of straight stanchions there is a series of arches or ribs, the ends of which fit into sockets in the runners, to which they are tied by means of leather strips passing through holes. On these arches, which stand upright and are parallel to one another, a long rectangular frame is placed, having longitudinal and transverse bars forming a grating. The frame is attached to the arches by means of thongs. In racing and riding sledges, these gratings are used as seats. In freight-sledges there is an upright grating all around, and a horizontal grating forms the bottom of the body of the sledge. As in the case of the Chukchee, the riding-sledge of the woman is somewhat larger than that of the man.

The dimensions of the riding-sledges which I collected on my expedition are as follows: —

	Man's Sledge.	*Woman's Sledge.*
Length	216 cm.	228 cm.
Width	39 "	46 "
Height	28 "	37 "
Weight	17.5 lbs.	25 lbs.

[1] Bogoras, The Chukchee, Vol. VII of this series, pp. 89–92.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

493 The racing-sledge is so small and light that it can be lifted with one finger.

171 While the question as to the origin of reindeer-breeding among the Koryak and the Chukchee must for the present remain open, there is no doubt in my mind that the type of the Koryak-Chukchee sledge — with arches instead of pairs of stanchions, and with runners the fore-ends of which are curved upward and joined to the upper rails[1] — is of local origin. Nowhere is this type of sledge to be found, except among the Reindeer Yukaghir (the nearest neighbors of the Chukchee and the Koryak) and among the Yukaghirized tundra Tungus, between the Kolyma and Yana Rivers. The Yukaghir driving-sledges are not as carefully finished as those of the Chukchee and Koryak, and are somewhat higher than those of the latter; but this does not prevent the Yukaghir from riding astride the sledge, like the Chukchee and the Koryak.

The sledge which was described by Bogoras under the name of Tungus sledge,[2] I should rather call Yakut. I believe that the northern Tungus riders who have recently begun to use sledges adopted this type of sledge from the Yakut. This sledge is a combination of the ox-sledge of the southern Yakut and the northern dog-sledge. By its lesser length and greater width as compared with a dog-sledge, it resembles a Yakut ox-sledge; but in its stanchions, the thonged grating around the sledge, and the horizontal arch attached to the front parts of the runners, it resembles the dog-sledges. The northern Yakut also use these sledges in driving passengers with horses, or in drawing loads. The driver usually sits astride the horse, and from each side of the saddle a line runs to the front of the sledge.

492 Mr. Bogoras has pointed out the difference between the reindeer-harness
171 of the Chukchee and the Koryak on the one hand, and that of the Yakut and the Tungus on the other. I wish to call attention here to the advantages of the harness of the latter. The Yakut always use two reindeer to a sledge, and therefore we must take for comparison the Koryak racing and driving sledges, which likewise are drawn by two reindeer. In the case of the Koryak sledges, both the reindeer to the right and the one to the left pull with the left shoulder, and the collar is slipped over each reindeer so as to take in its right fore-leg. The line running from the collar of each reindeer to the sledge, commencing at the right fore-leg, passes on the side of the reindeer by the right hind-leg, which remains on the left of the line. In the case of the Yakut, the reindeer to the right pulls with the right shoulder, — that is, the collar takes in its left fore-leg, — while the reindeer to the left draws like the Koryak reindeer. The angles of both collars are thus between the two reindeer, — on the right side of the left reindeer and on the left

[1] See Bogoras, The Chukchee, Vol. VII of this series, Fig. 17 p. 90; and Plate XXIV, and Plate XXXIX, Fig. 2, of this volume.

[2] See Bogoras, The Chukchee, Vol. VII of this series, Fig. 4, p. 70.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

492 run directly to the fore-part of the sled. The line of one dog (the leader), being somewhat longer, enables it to keep ahead; while the others, in running, 171 are arranged like a fan. According to Bogoras,[1] this method of harnessing was still in use on the Chukchee Peninsula in the middle of the last century. On the other hand, the Eskimo about Bering Strait now employ both the Asiatic and the American methods of harnessing; i. e., tandem and fan-like,[2] having evidently adopted the former method from the Chukchee, or rather from the Russians in Alaska. At Point Barrow the Eskimo, too, now employ the Asiatic method of harnessing. As Murdoch[3] states, "the dogs are attached in a long line, alternately on opposite sides of this trace, just so far apart that one dog cannot reach his leader when both are pulling;" i. e., as the dogs are attached by the Yukaghir of the Upper Kolyma, the Gilyak, and in many cases by the Koryak. The Eskimo about Bering Strait, in employing the tandem method, attach single dogs alternately, or in pairs if there are more than three dogs.[1]

493 THE SLEDGE. — The sledge now employed by the Koryak for dog-driving 174 is of the same type as that in use in the whole of northeastern Siberia, but chiefly among the Russians. This sledge, with its three or four pairs of vertical stanchions, with a horizontal front bow tied to the upturned runners, and with a vertical bow at the first pair of stanchions and a netting of thongs on the sides and in the back, is also in use among the modern Chukchee, and has been described in detail by Bogoras.[4] We do not know now what was the original type of the Koryak dog-sledge, but doubtless it was not the sledge above described. The ancient Chukchee dog-sledge had "curved ribs, similar to the reindeer-sledge."[5] The ancient dog-sledge of the Kamchadal[6] also had curved ribs. Accordingly there is no ground for assuming that the Russians adopted from the Koryak the above-described type of sledge with vertical bow. In Steller's time there were already in use in Kamchatka two types of sledges;[7] namely, the ancient Kamchadal sledge with curved ribs, and the present *narta* imported by the Russians. As with the dog-harness, so also with the East Siberian dog-sledge, I think that in its fundamental form it is a type of dog-sledge of some native tribe, most likely the dog-breeding Yukaghir, with whom the Russians fell in on the rivers Yana, Indighirka, and Kolyma, far back in the first half of the seventeenth century.[8]

[1] See Bogoras, The Chukchee, Vol VII of this series, p. 98.

[2] See Nelson, The Eskimo about Bering Strait, p. 209.

[3] See Murdoch, The Point Barrow Eskimo, p. 358.

[4] See Bogoras, The Chukchee, Vol. VII of this series, Fig. 21, pp. 104—106. It should be added, however, that our information concerning the method of harnessing and dog-driving of the Maritime Chukchee of the Arctic Ocean between Cape Erri and East Cape is as yet incomplete.

[5] See Bogoras, The Chukchee, Vol. VII of this series, p. 99.

[6] See Steller, p. 370; Krasheninnikoff, II, p. 78; Bogoras, The Chukchee, Vol. VII of this series, p. 93.

[7] See Steller, p. 370.

[8] The Cossacks founded the town Verkhoyansk on the Yana River, and reached the Indighirka as early as 1639. Since then the Russians have been improving the local means of transportation.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

But the Russians considerably improved upon the native type, and then carried it to Kamchatka, the Koryak, Chukchee, and to the Russian settlers on the Amur. Part of the Yakut, who became dog-breeders but lately, have also adopted this type of sledge. Its structure, dimensions, and firmness are well adapted for fast driving, for carrying heavy loads, and for making long journeys, — conditions of which the primitive tribes of Siberia had no need, or much less need than the Russian conquerors, — at first for military campaigns, and later for mercantile transports, the conveyance of officials and priests, and for carrying scientific expeditions. For the transportation of passengers the sledge had to be made long, with a comfortable seat in the rear,[1] and room in front for the driver. I also think that the vertical bow of the sledge is a Russian invention. When jumping off the sledge during the journey, either to run for a while or to urge the dogs along, the driver does not let go of this bow. If he should, the dogs, on scenting game, or aroused by something else, might suddenly run away, leaving the driver in the wilderness. This danger is great when the number of dogs in harness is considerable and the sledge is without freight. Once when I myself drove a team of dogs and got off to adjust the sledge, the dogs suddenly ran away and left me alone. Luckily there was a village seven kilometres away, where the dogs stopped, while I escaped with no more serious result than having to walk this distance in heavy travelling-clothes.[2] The Yukaghir of the Upper Kolyma, who have few dogs, and who are in the habit of helping them to draw the sledge, use no vertical bow. In travelling over the Yukaghir territory on the Upper Kolyma River, I could make no use of Yukaghir dogs. They are unfit for fast driving with passengers and heavy freight. I had to hire horses from the distant Yakut villages. The Yukaghir themselves, in their wanderings, go on foot or on snowshoes. Only children and the sick sit on the sledges. But whenever I had to make short journeys, and it was inconvenient to send for Yakut horses, the Yukaghir, in order to carry me some five or ten miles, would combine the dogs of two or three households into one team. I would sit on the sledge alone, without a native driver. One Yukaghir on foot, — sometimes on snowshoes — would run in front, followed by the team; while another would run behind the sledge, holding in his hand one end of a long thong, the other end being tied to the

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[1] To a sledge intended for passengers a high netted back, made of sticks and strips of leather, is attached.

[2] I knew a certain Yakut, Nikolai Sleptsoff by name, who lived on the border of the forests, on the Kolyma tundra, and who in the spring was driving a dog-team over the open tundra, and fell ill with snow-blindness. Unable to see the trail, he could not drive, and he let the dogs go, in the hope that they would take him to the village. All at once he felt that the dogs had gotten off the trail and into the soft snow. He got off in order to feel for the trail with his feet; but the dogs, probably roused by some beast that passed by, ran away with the sledge, and left the blind Yakut alone in the tundra. Sixteen days he lay there, subsisting on melted snow. The Reindeer Yukaghir found him in a dying condition, and cared for him until he had regained his strength. The dogs and the sledge were found by the relatives of the Yakut, who went in search of him. They had strayed far away from the tundra, into the forest. The dogs, entangled in the bushes and in their own harness-straps, had died there.

11: Kennan--229 T-3 (1865) 1870 Koryak
116, 493 Maritime

"The Major, Dodd, and I were travelling in covered sledges, known to the Siberians as 'pavoskas,' and the reckless driving of the Kamenoi Koraks made us wish, in less than an hour, that we had taken some other means of conveyance, from which we could escape more readily in case of accident or overturn. As it was, we were so boxed up that we could hardly move without assistance. Our pavoskas resembled very much long narrow coffins, covered with seal-skin and mounted on runners, and roofed over at the head by a stiff hood just large enough to sit up in. A heavy curtain was fastened to the edge of this top or hood, and in bad weather it could be pulled down and buttoned so as to exclude the air and flying snow. When we were seated in these sledges our legs were thrust down into the long coffin-shaped boxes upon which the drivers sat, and our heads and shoulders sheltered by the seal-skin hoods. Imagine an eight-foot coffin mounted on runners, and a man sitting up in it with a bushel basket over his head, and you will have a very correct idea of a Siberian pavoska. Our legs were immovably fixed in boxes, and our bodies so wedged in with pillows and heavy furs that we could neither get out nor turn over."

17:Antropova E-4 (no date) 1964 RY4 Koryak RY4

sea hunting with reindeer-breeding. The remaining 7 groups of Koryaks—the Kamentsy, Parentsy, Itkantsy, Apukintsy, Kereks, Karagintsy and Palantsy—also maintained complex economies, with one or another occupation predominating.

Koryak reindeer-breeding was of two types. The first type—the keeping of large herds—existed among the Chavchuvens. In the early part of the 20th century, a small group of reindeer-breeders owned large herds, accounting for up to 80% of the total number of head. In the area of the Penzhina River, some reindeer-breeders owned 2-3 herds, adding up to as many as 10,000 reindeer. The pasturing of the large herds owned by the rich Koryaks was done by poor Koryaks who owned only a few reindeer or none at all, and were compelled to tend their master's herds in exchange for food and clothing.

The reindeer provided the principal item of the reindeer-breeders' diet—meat, and the basic material for clothing and housing—hides, as well as tendons, of which thread was made. At the same time, the reindeer was to the reindeer-breeders the sole means of transportation. Hence, the entire life of the reindeer-breeding Koryaks was adapted to the demands of their basic occupation. In winter, the herd grazed near the encampment. As soon as the pasture was exhausted, the master drove out in a light sled, similar to that of the Chukchi and harnessed to a pair of deer, to search for another pasture. After that, the entire camp migrated to the new site, and the herdsmen drove the herd to the new pasture. Such migrations took place 4-5 times during the winter. In the spring, before the calving (in April), the females were separated from the rest of the herd. Calving time (May) was the hardest period for the reindeer-breeders. The newborn calves had to be protected from predators—wolves, foxes, wolverines and ravens, and also kept from freezing. At this time, the herdsmen had no rest either by day or by night. They were helped by members of their families, and even old men and children took part in guarding the herd in encampments where the human population was small. Afterwards, the herdsmen drove the herds for the whole summer into the mountains, which abounded in pasturelands. The correct choice of the summer pasture determined the welfare of the herd for the entire year. Summer pasturing required from the reindeer-breeder great skill, experience, and knowledge of the tundra and the reindeer's requirements. The encampment was situated at this period in a summer site, usually on the bank of a river abounding in fish. In autumn (at the end of September and beginning of October), the herdsmen brought the herd to the encampment. Meeting of the herd—one of the principal holidays of the reindeer-breeders—was attended by numerous rituals. After the first snow, the herd and the camp migrated to the winter range.

The herding was done without dogs, which the Koryak reindeer-breeders did not use. Nimble feet, alert eyes and a leather lasso requiring great skill of the herdsmen—these were the means at his disposal to protect the herd from snowstorms and wolves in winter, from foxes and ravens in spring, during the calving season, and from mosquitoes and gnats in summer.

Another type of reindeer-breeding—that of small herds—existed among the Alyutortsy Koryaks. More than 50% of all the Alyutortsy kept reindeer, but few had herds as large as 1000 head. A characteristic feature of Alyutor reindeer-breeding was the use of dogs as the principal sled animals. Each household had one, two, three or more teams. Reindeer were used only for short trips without loads.

This type of reindeer-breeding was usually combined with sea hunting and fishing. All the Alyutortsy, with rare exceptions, went out on sea hunts, especially in spring, when they hunted on drifting ice floes. In summer,

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Reindeer-breeders' dwelling.

361 [172] fishing, or at river deltas. Kerek villages were small, consisting of only one or two dwellings. In the past, however, as seen from the ruins, they consisted of 10 to 15 dwellings.

177 342 Russian influence led to the appearance in the villages of the sedentary Koryaks of wooden frame houses as long ago as the middle of the last century.

Means of Transportation

492 493 [184] [191] The nomad Koryaks traveled by reindeer, the sedentary ones by dog-transport. The reindeer were harnessed to the sled; the Koryaks did not know of riding on reindeer. The reindeer sleds were similar to the Chukchi sled in construction. The light ones were arch-staved, with bent runners and a frame for sitting. The freight sleds were built in the same fashion, but more massively. Depending on the purpose of the freight-hauling sled, it was either surmounted by a hood (as in the sleds used for transporting children), or simply by a platform on poles (for carrying loads). There was also a special sled for carrying the frame of the dwelling, and so forth.

The light traveling sleds were usually harnessed to two reindeer; the freight-hauling sled was pulled by one reindeer. The reindeer were harnessed, not in front of the traveling sled, but on the left, so that the driver sitting in the sled could see everything ahead of him. When going downhill,

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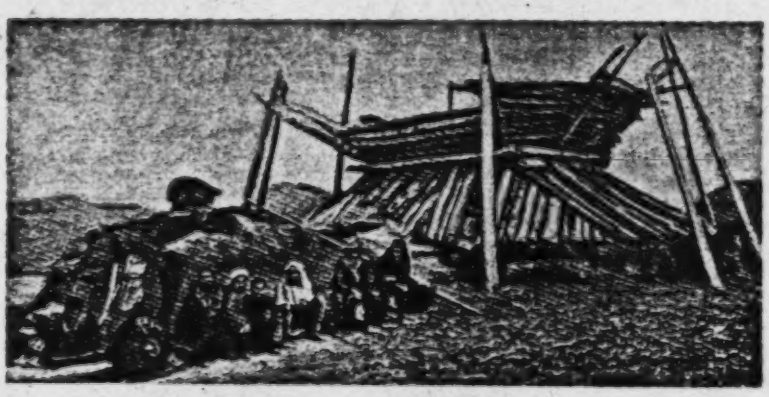
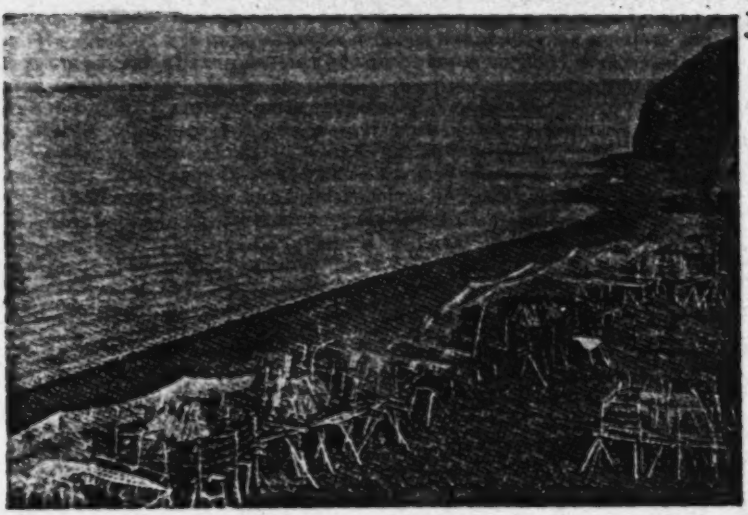


Dwelling of coastal Koryaks.

17:Antropova E-4 (no date) 1964 RY4 Koryak RY4



Summer village.

the reindeer remained slightly behind the driver on the left, restraining the sled from slipping down too fast. The reindeer were managed with the help of reins and a whip with bone tips.

The coastal Koryaks and the reindeer-breeding Alyutortsy kept sled dogs. A full team usually consisted of 10 to 12 animals. For dog-travel, the Koryaks used the four-staved sled, common throughout Eastern Siberia. It was 2-2.5 m long, and 0.5 m wide. Its parts were fastened with leather strips and sharpened pegs inserted into holes, made especially to receive them. The dogs were harnessed tandem, in pairs. They were directed by voice, and braked with the aid of a staff (about one meter long) with an iron tip. The standard load per sled was 150-160 kg in addition to the weight of the driver (kayur).

The Koryaks learned horse-breeding from the Russians. Sedentary Koryaks (Palantsy, Karagintsy and southern Alyutortsy) kept horses, but they were used only in summer, as pack animals. In winter, they were left to their own devices, foraging for green fodder and often perishing of starvation, blizzards, frosts and wolves. Often the horses became so wild that their owner found it easier to walk dozens of miles with heavy loads rather than try to capture the horse.

For water transportation, the Koryaks used skin boats (baydars and kayaks). The Koryak baydar was similar to the Chukchi, but was considerably shorter and wider; its prow and stern were rounded. It was used by the Koryaks chiefly for hunting and fishing.

During the summertime, river transportation was by bat-boats hollowed out of thick tree trunks. They are extremely unstable in the water and require great skill of the helmsman, who steer with a long pole. Despite their untrustworthiness, these boats were also used by the Koryaks on the sea. In such cases, they were joined: two boats were linked with thick crossbars, leaving a space between them which was approximately equal to the width of one boat. Sometimes

17:Antropova E-4 (no date) 1964 RY4 Koryak RY4

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Light traveling sled and sled for transporting children.

501 boards were laid on top of the crossbars, and then the result resembled a raft.

291 237 ## Clothing

The Koryak dress is most similar to that of the Chukchi. All Koryaks used the skins of young reindeer for both summer and winter clothing. Other skins (dogs, foxes, wolves and wolverines) were used only to trim the upper clothing, and to make hats and mittens.

The basic clothing of men consisted of an almost knee-length fur shirt without a lengthwise opening and with wide sleeves; this was worn with fur trousers and footwear. The shirt was made with a cowl and a small breastpiece, or without a cowl, but with a wide collar, edged with a seam. A cord was pulled through the seam, drawing the shirt together at the neck. The collar was usually trimmed with dog fur; black fur was considered the most beautiful.

Travel garb was cut in the same fashion, but longer. It consisted of two separate fur shirts, of which one was worn with the fur inside, and the other, with the fur outside. It was usually made with a cowl and a small breastpiece.

[184] [179] The clothing was usually worn directly on the body; the coastal Koryaks were the only ones to wear it frequently over fabric shirts, acquired from the local Russians.

Trousers were sewn of reindeer skins. Footwear was made of suede.

Women's winter dress was a wide fur overall with sleeves. The trousers were tucked into the boots below the knee. Very often they were made of vertical strips of white and dark fur. Above the overall, the women usually wore a fur shirt. It was of the same cut as the men's shirts, but decorated with tassels and embroidery.

[531] A characteristic feature of Koryak winter dress (men's and women's), which distinguished it from the Chukchi dress, was the patterned strip at the hem—the opuvan. This was usually made of reindeer fur, but of a different color from the rest of the garment; sometimes it was decorated with mosaic designs.

17:Antropova E-4 (no date) 1964 RY4 Koryak RY4

Preparation of seines. Korfa Motor-Fishing Station.

Motorized transport (cutters etc.) is widely used in summertime. In winter, dog and reindeer transportation are still important.

The general rise in the material well-being of the collective-farm Koryaks has been reflected in increased consumption of bought food products and other commodities. In the present Koryak diet important places are held by such food products as flour, cereals, sugar and other commodities bought in the local store. In recent years, bought urban-type clothing has become increasingly widespread, but side by side with it the Koryaks retain their national dress, especially their winter dress, which is well adapted to the severe climate of the okrug.

Cultural construction, launched after the organization of the okrug, has achieved marked results. Before the Revolution, the Koryaks were illiterate. In the two parochial schools which existed in the area in 1916 there were only 13 Koryak children. Wide school construction began from the very first years of the Soviet regime. In 1925, schools were opened in a number of villages. The school in the village of Tilichiki was reorganized into a boarding school for children of the nomads.

Before World War II, there were 30 Koryak schools in the okrug; in 1951 there were already 97 primary, seven-year and secondary schools (27 of these were boarding schools).

The personnel for the national schools is trained in the pedagogic school in the village of Tigil'. In the course of its existence, the school has trained more than 100 teachers, including Koryaks. Young Koryak students receive advanced teachers' training in Khabarovsk. A number of graduates of the Khabarovsk Pedagogical Institute work in the schools of the Koryak National Okrug. Among the students of the Department of the Peoples of the Far North at the Herzen Pedagogical Institute in Leningrad there are Koryak students who specialize in the languages, history and economics of the northern peoples.

23: Krasheninnikov N-3 (1736-40) 1764 Koryak

deer are killed or have died lately. For particular gueſts, indeed, they will kill ſome of their ſtock, and at ſuch times only they have a hearty meal. They never milk the rein-deer, nor know any uſe of milk. They eat their fleſh for the moſt part boiled, and what they do not conſume immediately they dry with the ſmoke in their huts. One of their principal diſhes is called *yamgaya*, which is made thus; they put the blood of the beaſt mixed with ſome fat into its ſtomach or paunch, which they hang up and ſmoke. Our Coſſacks reckon this a great delicacy. Beſides, the *Koreki* eat every other animal except dogs and foxes. They uſe, in general, neither herbs, roots, nor barks of trees; but the poor feed on them in time of great ſcarcity; nor will any catch fiſh, except the deer-herds, and that very ſeldom. They make no proviſion of berries for the winter, but only eat them freſh in the ſummer. They think nothing can be ſweeter than cranberries beat up with the root ſaran and deer's fat. I had an opportunity of ſeeing one of their chieftains exceedingly ſurpriſed upon the firſt ſight of ſugar, which he took for ſalt; but taſting it was ſo pleaſed with its ſweetneſs, that he begged ſome pieces to carry to his wives: but, as he was not able to reſiſt the temptation of ſo delicious a rarity, he ate it all up on the road; and when he came home to his houſe, although he ſwore to the women that he had taſted ſalt ſweeter than any thing he had ever taſted before, yet they would not believe him, inſiſting that nothing could be ſweeter than cranberries with deer's fat and lilly-roots.

They ride only in the winter time on ſledges drawn by rein-deer, but never mount upon their backs in the ſummer, as they ſay the *Tunguſi* do. Their ſledges are made about a fathom long: the ſides are about four inches thick, but rather thinner at the fore part, where they are bent upwards: the two ſide-pieces are joined together by ſmall pieces of wood. They yoke two